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POWER OF COMPOUND INTEREST

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1. What is compound interest?

The publicity slogan of one bank says “You’ll save up enough money here one day…but not earlier then you start doing it”. The secret of slow but durable and sure accumulation of capital is in the power of compound interest. The long term investments are often called “the secret of the rich” when money makes money without your participation. So what’s the magic of it and how does it work?

According to Einstein, compound interest is the greatest invention in human history and the ninth wonder of the world. Compound interest is defined as interest that is paid on the original sum plus all of the previously earned interest. This means that if you invest any amount it will continuously grow at an ever accelerating rate. Perhaps you have seen long term charts from various asset classes. In every long term chart it always seems that the line starts almost flat and then skyrockets up as it gets closer to the current date. This occurs because of compound interest. At every cycle an investment is constantly earning more interest than it did in the previous cycle.

Yet compound interest remains a mystery to most people until they have seen it in action. Who can believe that it doesn’t matter how much you save but for how long you do so. They say the amount of capital you start with is not as important as getting started early.

2. A Lesson from Benjamin Franklin.

There’s a striking example to reveal the power of compound interest. Benjamin Franklin decided to leave a bequest of £1,000 (about $4,550 at the time of his death) each to his native hometown of Boston and adopted hometown of Philadelphia on the condition that they would gather interest for 200 years. Franklin believed 200 years was the maximum length of time any person should be able to control assets from beyond the grave. Mr. Franklin stipulated that the funds should be used to make loans at 5% interest to young craftsmen under the age of 25 to help them set up their businesses. The loans were to be given only to those craftsmen who were married, had completed their apprenticeships, and could obtain two co-signers to vouch for them.

After 100 years, each city was to take 75% of the fund to use for public works (like bridges, pavement, public buildings, and the like). They were then to continue loaning the money for another 100 years. At the end of that 100 years, each city would get about 25% of the money and their respective states would get the rest. Had Boston and Philly followed through with Franklin’s wishes successfully, they would each have had nearly $20,000,000 in their funds at the end of the 200 years.

In truth, Boston only had about $5,000,000 in its fund at the end of the 200 years, and Philadelphia only had about $2,000,000. And that’s after spending 75% of it halfway through the 200 year period. That’s still a strong testament to the power of compound interest. It could have theoretically reached well over $78,000,000 if they had never spent any and had managed it well. As Ben Franklin said: “The dime the dollar earned, earns a penny”

The point of Franklin’s experiment was partially to benefit two cities dear to his heart, but I believe he was also trying to illustrate the tremendous power of compound interest for

future generations. The longer you keep your money invested, the more amazing the power of compound interest.

3. How we can make use of compound interest.

Let us have a good look to the power of compound interest with regard to our real life. There are two types of investing.

1) One-time investing.

Imagine that you invest $100 at 12% interest rate yearly. In a year you'll have $112 including your original $100 and interest yield of $12. Now you increase the amount of investment up to $112. Moving on, next year your interest yield will be $13,4. That way your $100 turns into $29,000 in 50 years and that's 290 times greater than your startup capital! Probably, you're not inspired with the possibility to get only $29,000 after 50 years of passionate expectation. But for the present instance we care for the growing tendency. Have you ever heard the expression: "The money that money earns, earns money"?

There's a well-know Rule of 72. It says that to find the number of years required to double your money at a given interest rate you just divide the interest rate into 72. For example, if you want to know how long it will take to double your money at 20% interest, divide 20 into 72 and get 3,6 years.

Besides, there are two contributing factors to make the capital grow more rapidly: annual yield rate and regular capital investments. Let us recur to the previous example. What happens if we increase our interest rate up to 20%? Many will not believe it but now we surprisingly have $910,044, almost A MILLION, instead of $29,000. It is impressive enough and inspires with great perspectives. Many are ready to plunge into adventures to get more money but often play fast and just loose them. But there is another instructive example that helps to understand that hunting for super profit is not that important as the regularity of investments is.

2) Regular investing.

Now let us imagine you invest $100 not once but MONTHLY: $1,200 annually at the same 12% interest rate. How much are you supposed to get in 50 years? Over $3,944,000! And the desired million you are to get in only 38,5 years.

The longer you invest and re-invest your yield the more steep is the capital increase line. So everything you need is patience and discipline to make your money grow cleverly. And of course a startup capital is not out of place.

4. Why should you start right now?

Assume you start investing not today but a year later. What amount are you going to lose coming out of the 50^{th} year of investing? Here you should subtract the last year's result - $151,674. Isn't it persuasive?

The following scenario demonstrates the value of time and compound interest.

Imagine two individuals, me and my friend. I have a profitable occupation and decide to start investing right now $2,000 at 10% interest rate every year. I do so for 20 years and then stop investments. But still my cumulative yield continues running until I am 65 years old.

My friend on the other hand got a later start than me, 20 years to be exact, but was able to invest $2,000 annually at the same rate during 25 years. Whom do you think would have more money at the age of 65? The answer will amaze you. Even though I was able to invest only for 20 years I would have about $1,250,000 and my friend – only $200,000 when we turn 65 each. What a splendid triumph!

Now you get the picture. The point is that compound interest works, and works well. If you're not using it to maximize your money, then get to it. You don't have to start with much; you simply have to be consistent. But you must start. Be sensible and patient; do not hunt for super profit. Every day someone fails to start investing they are literally throwing away a

fortune. It’s just like magic, so what are you waiting for? Start saving today, and make your money work for you.